

STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 121775

TO: David Lukton
Location: REM-3B75&3C70
Art Unit: 1653
Wednesday, May 12, 2004

Case Serial Number: 09/581397

From: Mary Jane Ruhl
Location: Biotech-Chem Library
Remsen 1-B55
Phone: 571-272-2524

maryjane.ruhl@uspto.gov

Search Notes

Examiner Lukton,

Here are the results for your recent search request.

Please feel free to contact me if you have any questions about these results.

Thank you for using STIC services. We appreciate the opportunity to serve you.

Sincerely,

Mary Jane Ruhl
Technical Information Specialist
STIC
CM-1, Rm. 6-A-06
605-1155



STIC SEARCH RESULT

FEEDBACK FORM

Biotech-Chem Library

Questions about the scope or the results of the search? Contact the searcher or contact:

Mary Hale, Information Branch Supervisor
308-4258, CM1-1E01

Voluntary Results Feedback Form

➤ *I am an examiner in Workgroup:* Example: 1610

➤ *Relevant prior art found, search results used as follows:*

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

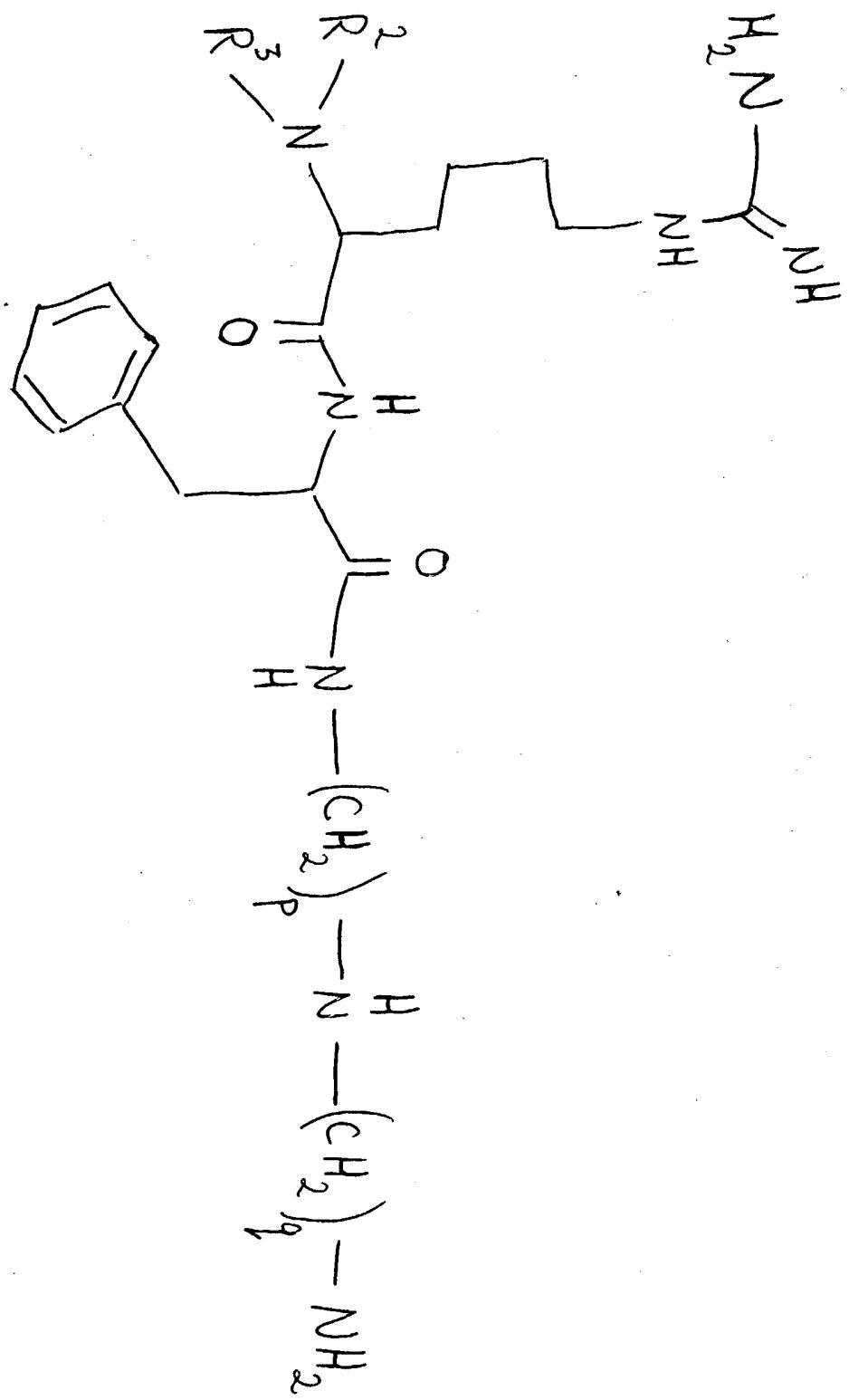
➤ *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC Biotech-Chem Library CM1-1 Circ. Desk





L6E 185/60

=> d his ful

(FILE 'HOME' ENTERED AT 11:12:35 ON 12 MAY 2004)

FILE 'REGISTRY' ENTERED AT 11:12:46 ON 12 MAY 2004

L1 STR
L2 0 SEA SSS SAM L1
L3 1 SEA SSS FUL L1
L4 STR L1
L5 0 SEA SSS SAM L4
L6 1 SEA SSS FUL L4
L7 1 SEA ABB=ON L3 OR L6

1 copied from Reg - all done at, attached

FILE 'HCAPLUS' ENTERED AT 11:23:05 ON 12 MAY 2004

L8 2 SEA ABB=ON L7

FILE 'CAOLD' ENTERED AT 11:23:33 ON 12 MAY 2004

L9 0 SEA ABB=ON L7

FILE 'HCAPLUS' ENTERED AT 11:23:42 ON 12 MAY 2004

D IBIB ABS HITSTR L8 1-2
SELECT RN L8 1-2

FILE 'REGISTRY' ENTERED AT 11:24:58 ON 12 MAY 2004

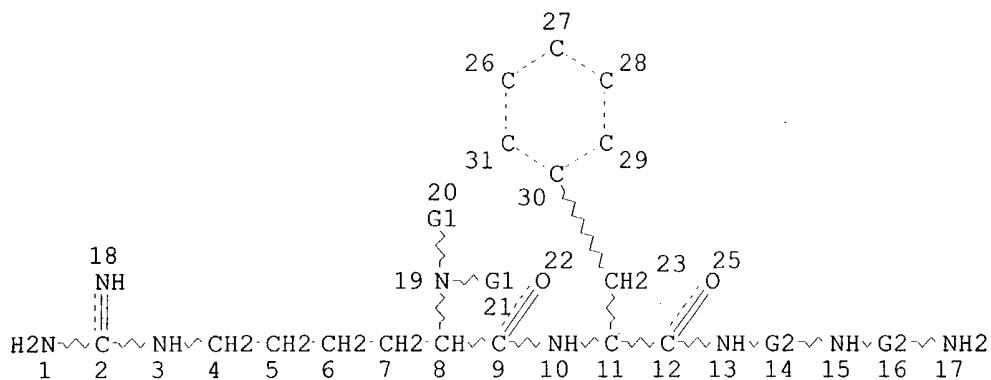
L10 24 SEA ABB=ON (110-60-1/BI OR 134951-15-8/BI OR 156-87-6/BI OR
191277-14-2/BI OR 227758-28-3/BI OR 227758-32-9/BI OR 227758-33
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227758-37-4/BI OR 11062-77-4/BI OR 19059-14-4/BI OR 191277-15-3
/BI OR 222640-12-2/BI OR 227758-27-2/BI OR 227758-29-4/BI OR
227758-30-7/BI OR 227758-31-8/BI OR 227758-40-9/BI OR 227758-41
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FILE 'HCAPLUS' ENTERED AT 11:36:35 ON 12 MAY 2004

L11 2 SEA ABB=ON L8 AND L10

*2 cits from CA Plus -
inventors*

=> d que stat 111
 L4 STR



VAR G1=H/C/O
 REP G2=(3-4) CH2
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE
 L5 0 SEA FILE=REGISTRY SSS SAM L4
 L6 1 SEA FILE=REGISTRY SSS FUL L4
 L7 1 SEA FILE=REGISTRY ABB=ON L5 OR L6
 L8 2 SEA FILE=HCAPLUS ABB=ON L7
 L10 24 SEA FILE=REGISTRY ABB=ON (110-60-1/BI OR 134951-15-8/BI OR
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 -9/BI OR 227758-41-0/BI OR 227767-50-2/BI OR 446882-39-9/BI OR
 577692-72-9/BI)
 L11 2 SEA FILE=HCAPLUS ABB=ON L8 AND L10

=> d ibib abs hitstr 111 1-2

L11 ANSWER 1 OF 2 HCPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:633453 HCPLUS
 DOCUMENT NUMBER: 139:159957
 TITLE: Spermidine derivatives for the treatment of chronic neurodegenerative diseases
 INVENTOR(S): Morrison, Barclay, III; Pringle, Ashley Ker;
 Sundstrom, Lars Eric; Wulfert, Ernst
 PATENT ASSIGNEE(S): University of Southampton, UK
 SOURCE: PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066037	A1	20030814	WO 2003-GB507	20030205
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: GB 2002-2645 A 20020205

OTHER SOURCE(S): MARPAT 139:159957

AB Spermidine derivs. are provided that are useful in treating chronic neurodegenerative diseases or conditions in mammals, e.g. Alzheimer's disease, Parkinson's disease, Huntington's chorea and multiple sclerosis.

IT 11062-77-4, Superoxide 19059-14-4, Peroxynitrite

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (spermidine derivs. for treatment of chronic neurodegenerative diseases)

RN 11062-77-4 HCPLUS

CN Superoxide (8CI, 9CI) (CA INDEX NAME)

O—O

RN 19059-14-4 HCPLUS

CN Peroxynitrite (8CI, 9CI) (CA INDEX NAME)

O—N—O—O—

IT 577692-72-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (spermidine derivs. for treatment of chronic neurodegenerative diseases)

RN 577692-72-9 HCAPLUS

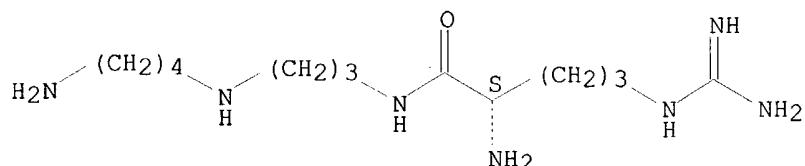
CN Pentanamide, 2-amino-N-[3-[(4-aminobutyl)amino]propyl]-5-[aminoiminomethyl]amino]-, (2S)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 191277-14-2

CMF C13 H31 N7 O

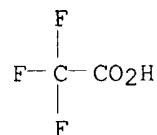
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 134951-15-8 191277-14-2 227758-28-3

227758-30-7 227758-32-9 227758-33-0

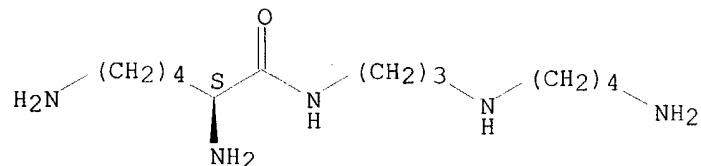
227758-34-1 227758-35-2 227758-36-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(spermidine derivs. for treatment of chronic neurodegenerative diseases)

RN 134951-15-8 HCAPLUS

CN Hexanamide, 2,6-diamino-N-[3-[(4-aminobutyl)amino]propyl]-, (2S)- (9CI) (CA INDEX NAME)

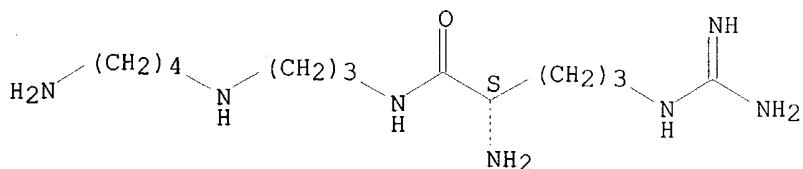
Absolute stereochemistry.



RN 191277-14-2 HCAPLUS

CN Pentanamide, 2-amino-N-[3-[(4-aminobutyl)amino]propyl]-5-[aminoiminomethyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

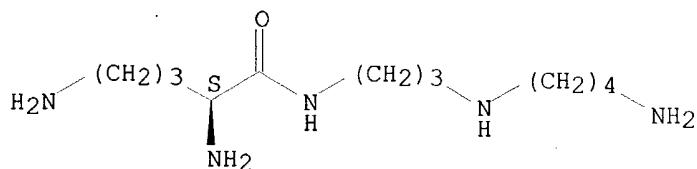
Absolute stereochemistry.



RN 227758-28-3 HCPLUS

CN Pentanamide, 2,5-diamino-N-[3-[(4-aminobutyl)amino]propyl]-, (2S)- (9CI)
(CA INDEX NAME)

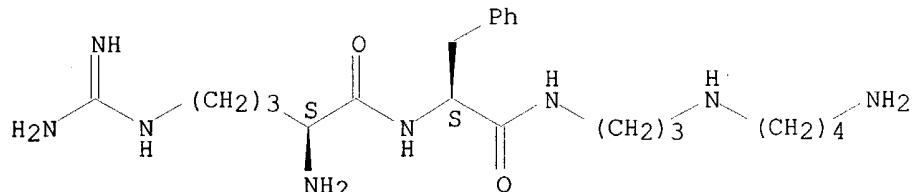
Absolute stereochemistry.



RN 227758-30-7 HCPLUS

CN L-Phenylalaninamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI)
(CA INDEX NAME)

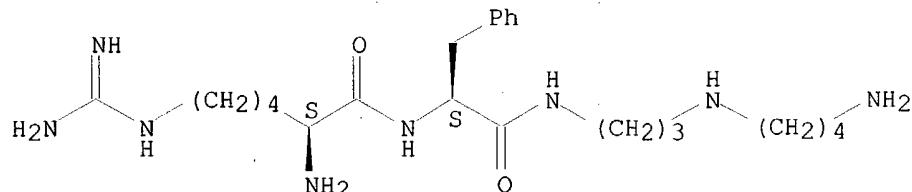
Absolute stereochemistry.



RN 227758-32-9 HCPLUS

CN L-Phenylalaninamide, N6-(aminoiminomethyl)-L-lysyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

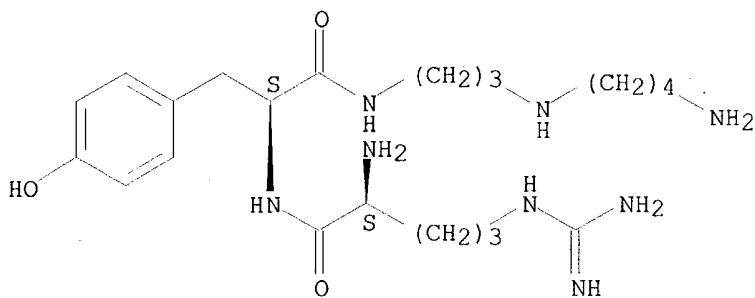
Absolute stereochemistry.



RN 227758-33-0 HCPLUS

CN L-Tyrosinamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

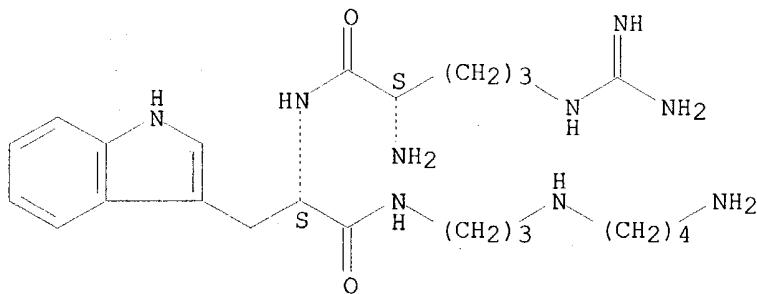
Absolute stereochemistry.



RN 227758-34-1 HCAPLUS

CN L-Tryptophanamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

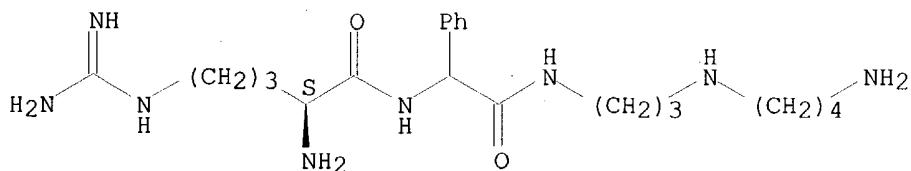
Absolute stereochemistry.



RN 227758-35-2 HCAPLUS

CN Glycinamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]-2-phenyl- (9CI) (CA INDEX NAME)

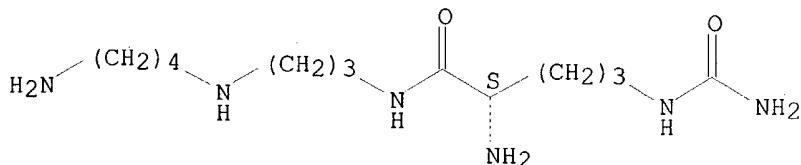
Absolute stereochemistry.



RN 227758-36-3 HCAPLUS

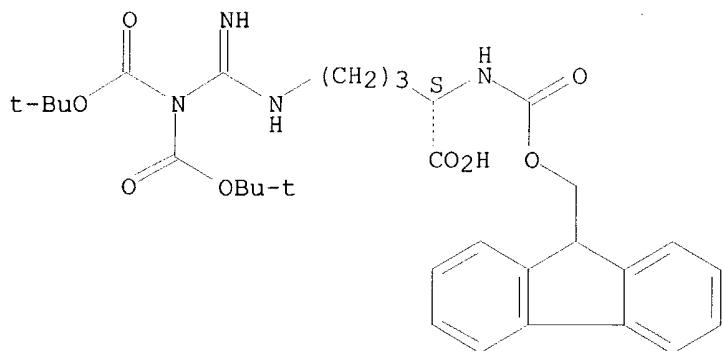
CN Pentanamide, 2-amino-N-[3-[(4-aminobutyl)amino]propyl]-5-[(aminocarbonyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

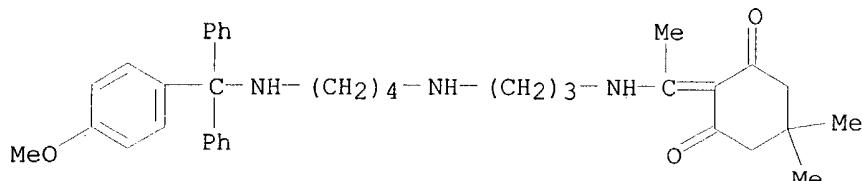


IT 222640-12-2 446882-39-9D, resin-bonded
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (spermidine derivs. for treatment of chronic neurodegenerative
 diseases)
 RN 222640-12-2 HCAPLUS
 CN 2-Oxa-4,9,11-triazadodecan-12-oic acid, 5-carboxy-11-[(1,1-
 dimethylethoxy)carbonyl]-1-(9H-fluoren-9-yl)-10-imino-3-oxo-,
 12-(1,1-dimethylethyl) ester, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 446882-39-9 HCAPLUS
 CN 1,3-Cyclohexanedione, 2-[1-[[3-[[4-[(4-methoxyphenyl)diphenylmethyl]amino]butyl]amino]propyl]amino]ethylidene]-5,5-dimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1999:404918 HCAPLUS
 DOCUMENT NUMBER: 131:59135
 TITLE: Preparation of amino acid derivatives as
 neuroprotective agents
 INVENTOR(S): Pringle, Ashley Ker; Bradley, Mark; Sundstrom, Lars
 Eric; Iannotti, Fausto
 PATENT ASSIGNEE(S): University of Southampton, UK
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9931049	A1	19990624	WO 1998-GB3775	19981216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2315258	AA	19990624	CA 1998-2315258	19981216
AU 9915717	A1	19990705	AU 1999-15717	19981216
AU 739296	B2	20011011		
EP 1040096	A1	20001004	EP 1998-960031	19981216
EP 1040096	B1	20030709		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002508349	T2	20020319	JP 2000-538979	19981216
NZ 505110	A	20030131	NZ 1998-505110	19981216
RU 2205177	C2	20030527	RU 2000-116112	19981216
AT 244698	E	20030715	AT 1998-960031	19981216
PT 1040096	T	20030930	PT 1998-960031	19981216
ES 2201563	T3	20040316	ES 1998-960031	19981216
CA 2355880	AA	20000622	CA 1999-2355880	19990616
WO 2000035941	A2	20000622	WO 1999-GB1719	19990616
WO 2000035941	A3	20011004		
W: CA, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1144434	A2	20011017	EP 1999-936759	19990616
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R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
NO 2000003075	A	20000815	NO 2000-3075	20000615
HK 1029331	A1	20031003	HK 2000-108125	20001215
PRIORITY APPLN. INFO.:				
GB 1997-26569 A 19971216				
WO 1998-GB3775 W 19981216				
WO 1999-GB1719 W 19990616				

OTHER SOURCE(S): MARPAT 131:59135

AB Amino acid derivs. Q-Ra-C*H(NR2R3)CO-Zn-NR1-Rb-NH-Rc-NH-W [Q = amidino, cyano, or amino group; Ra, Rb, Rc = (un)substituted alkylene, alkenylene; R2, R3 = H, R, RCO, RO2C, RNHCO (R = (un)substituted alkyl or aryl); the chiral atom indicated by the asterisk is in the L configuration; Z is an amino acid residue; n = 0, 1; R1 = H, (un)substituted alkyl or aryl; W = H, alkyl, aryl] were prepared as neuroprotectants. Thus, N1-L-arginylspermidine, prepared by coupling of resin-bound spermidine derivative with protected arginine, followed by deprotection/cleavage using TFA-phenol-water-triisopropylsilane-1,2-ethanedithiol, showed 99.4 % protection (relative to control hypoxia in CA1 pyramidal cell layer).

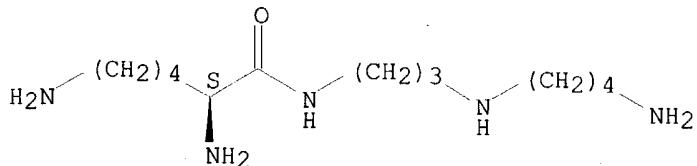
IT 134951-15-8P 191277-14-2P 191277-15-3P
 227758-27-2P 227758-28-3P 227758-29-4P
 227758-31-8P 227758-32-9P 227758-33-0P
 227758-34-1P 227758-35-2P 227758-36-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of amino acid derivs. as neuroprotective agents)

RN 134951-15-8 HCAPLUS

CN Hexanamide, 2,6-diamino-N-[3-[(4-aminobutyl)amino]propyl]-, (2S)- (9CI)
 (CA INDEX NAME)

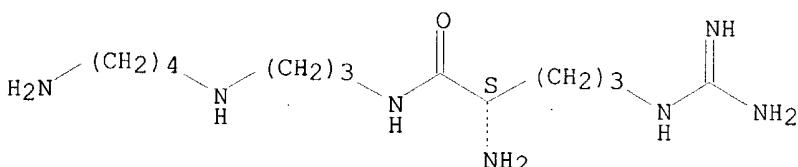
Absolute stereochemistry.



RN 191277-14-2 HCPLUS

CN Pentanamide, 2-amino-N-[3-[(4-aminobutyl)amino]propyl]-5-[(aminoiminomethyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

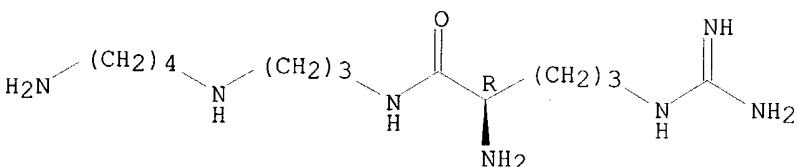
Absolute stereochemistry.



RN 191277-15-3 HCPLUS

CN Pentanamide, 2-amino-N-[3-[(4-aminobutyl)amino]propyl]-5-[(aminoiminomethyl)amino]-, (2R)- (9CI) (CA INDEX NAME)

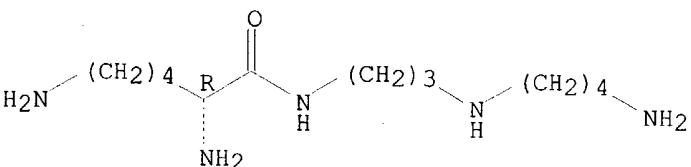
Absolute stereochemistry.



RN 227758-27-2 HCPLUS

CN Hexanamide, 2,6-diamino-N-[3-[(4-aminobutyl)amino]propyl]-, (2R)- (9CI) (CA INDEX NAME)

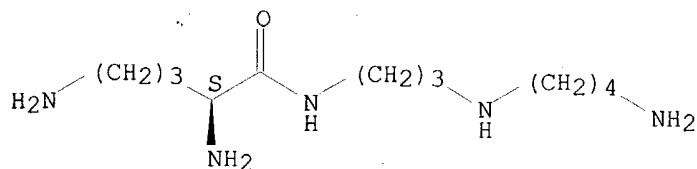
Absolute stereochemistry.



RN 227758-28-3 HCPLUS

CN Pentanamide, 2,5-diamino-N-[3-[(4-aminobutyl)amino]propyl]-, (2S)- (9CI) (CA INDEX NAME)

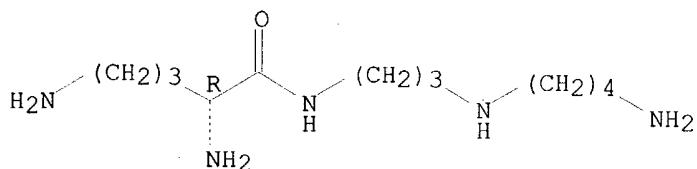
Absolute stereochemistry.



RN 227758-29-4 HCAPLUS

CN Pentanamide, 2,5-diamino-N-[3-[(4-aminobutyl)amino]propyl]-, (2R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 227758-31-8 HCAPLUS

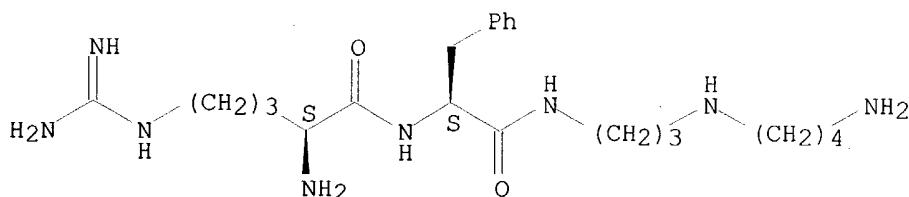
CN L-Phenylalaninamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 227758-30-7

CMF C22 H40 N8 O2

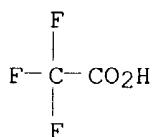
Absolute stereochemistry.



CM 2

CRN 76-05-1

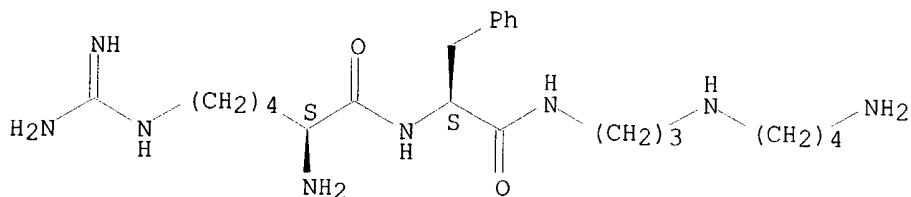
CMF C2 H F3 O2



RN 227758-32-9 HCAPLUS

CN L-Phenylalaninamide, N6-(aminoiminomethyl)-L-lysyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

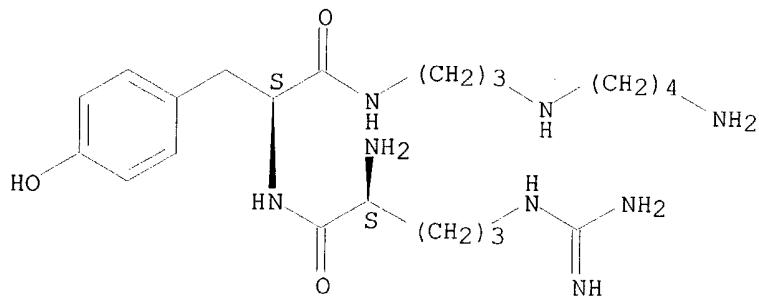
Absolute stereochemistry.



RN 227758-33-0 HCPLUS

CN L-Tyrosinamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

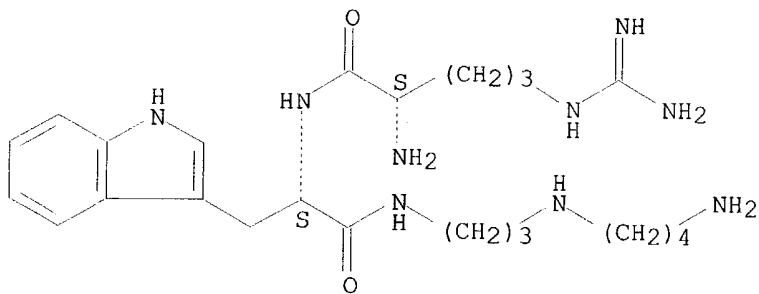
Absolute stereochemistry.



RN 227758-34-1 HCPLUS

CN L-Tryptophanamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

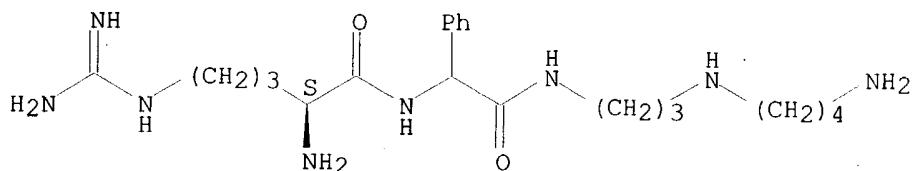
Absolute stereochemistry.



RN 227758-35-2 HCPLUS

CN Glycinamide, L-arginyl-N-[3-[(4-aminobutyl)amino]propyl]-2-phenyl- (9CI) (CA INDEX NAME)

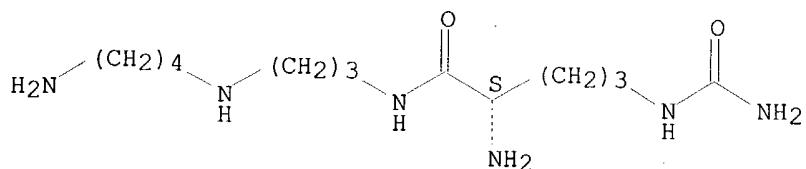
Absolute stereochemistry.



RN 227758-36-3 HCPLUS

CN Pentanamide, 2-amino-N-[3-[(4-aminobutyl)amino]propyl]-5-[(aminocarbonyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 227758-40-9 227758-41-0 227767-50-2

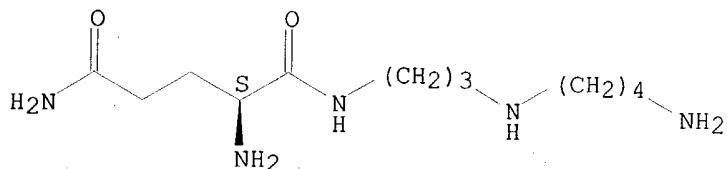
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of amino acid derivs. as neuroprotective agents)

RN 227758-40-9 HCPLUS

CN Pentanediamide, 2-amino-N1-[3-[(4-aminobutyl)amino]propyl]-, (2S)- (9CI) (CA INDEX NAME)

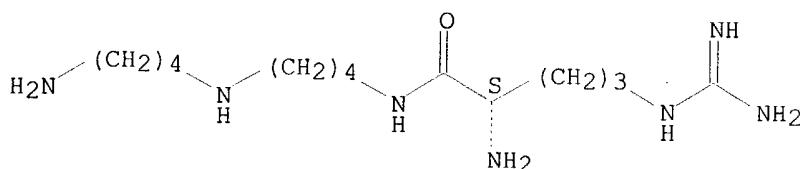
Absolute stereochemistry.



RN 227758-41-0 HCPLUS

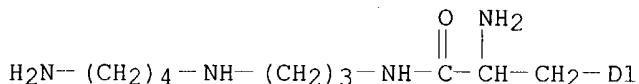
CN Pentanamide, 2-amino-N-[4-[(4-aminobutyl)amino]butyl]-5-[(aminoiminomethyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 227767-50-2 HCPLUS

CN Pyridinepropanamide, α -amino-N-[3-[(4-aminobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

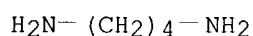


IT 110-60-1, 1,4-Butanediamine 156-87-6
227758-37-4D, resin-bound

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of amino acid derivs. as neuroprotective agents)

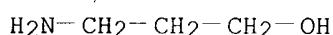
RN 110-60-1 HCAPLUS

CN 1,4-Butanediamine (8CI, 9CI) (CA INDEX NAME)



RN 156-87-6 HCAPLUS

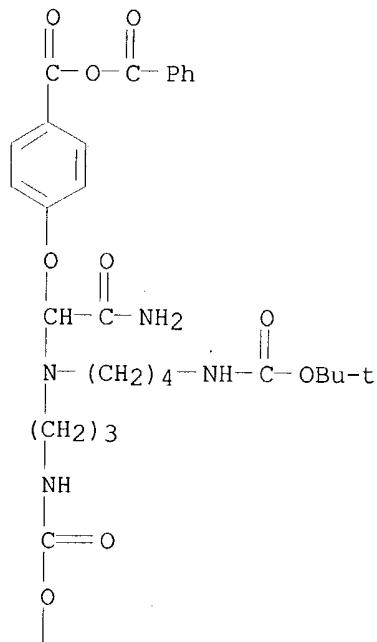
CN 1-Propanol, 3-amino- (8CI, 9CI) (CA INDEX NAME)



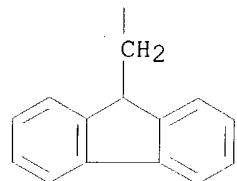
RN 227758-37-4 HCAPLUS

CN 13-Oxa-2,6,11-triazapentadecanoic acid, 6-[2-amino-1-[4-
[(benzoyloxy)carbonyl]phenoxy]-2-oxoethyl]-14,14-dimethyl-12-oxo-,
9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT